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1 5. (Amended) A system according to claim 4, wherein the  
2 mixed oxide is selected from the group consisting of Ba-Cu-O and MnO<sub>2</sub>-BaCuO<sub>2</sub>.

1 6. (Amended) A system according to claim 1, wherein the  
2 catalyst system comprises at least one of vanadia/titania and one or more platinum  
3 group metal.

1 7. (Amended) A system according to claim 1, wherein the  
2 injection means is arranged to inject the reactant upstream of the filter.

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1 9. (Amended) A system according to claim 1, wherein the  
2 injection means is arranged to inject the reactant downstream of the filter.

1 10. (Amended) A system according to claim 1, wherein the filter  
2 is catalysed.

1 11. (Amended) A system according to claim 1, wherein the  
2 injection means is for injecting ammonia, hydrazine, urea or aqueous urea solution.

1 12. (Amended) A system according to claim 1, further including  
2 sensors, indicators, computers and actuators, effective to maintain operation within  
3 desired conditions.

1 14. (Amended) A diesel engine including a system according to  
2 claim 1.

1 15. (Amended) An engine according to claim 14, which is a  
2 turbo-charged direct injection engine.

1 16. (Amended) A process for treating combustion exhaust gas  
2 containing CO, hydrocarbons (HC), NO, O<sub>2</sub>, soot and non-reactive gases,  
3 comprising the steps of: (i) catalysing oxidation of NO to NO<sub>2</sub>; (ii) collecting soot  
4 on a filter; (iii) combusting the collected soot by reaction with NO<sub>2</sub>; (iv) removing  
5 NO<sub>x</sub> from the product of step (iii) by contacting a regenerable NO<sub>x</sub> absorbent with  
6 gas containing NO<sub>x</sub>; (v) regenerating the absorbent intermittently by injecting a  
7 NO<sub>x</sub>-specific reactant upstream of the absorbent; and (vi) at least during step (v),  
8 contacting a catalyst system effective to promote reactions of HC and CO with O<sub>2</sub>  
9 to H<sub>2</sub>O and CO<sub>2</sub> and to react NO<sub>x</sub> to N<sub>2</sub> with the gas product of step (v).

1 18. (Amended) A process according to claim 16, wherein the  
2 NO<sub>x</sub>-specific reactant is ammonia or hydrazine and is injected as such or as a  
3 precursor compound decomposable thereto *in situ*.

1 19. (Amended) A process according to claim 18, wherein the  
2 precursor is urea or aqueous urea solution.

1 20. (Amended) A process according to claim 16, wherein the  
2 exhaust gas is the product of combustion of fuel containing less than 50 ppm w/w  
3 of sulphur.

1 21. (Amended) A process according to claim 16, operated in  
2 compliance with the European Stage IV emission legislation.

Please add the following new claims:

1 23. (Newly Added) A process according to claim 16,  
2 wherein step (iii) comprises combusting the collected soot by reaction with  
3 NO<sub>2</sub> and further with O<sub>2</sub> left over after step (i).

1 24. (Newly Added) A system according to claim 5, wherein  
2 the mixed oxide further comprises at least one of CeO<sub>2</sub>, Y-Ba-Cu-O and Y-Sr-  
3 Co-O.

Respectfully submitted,



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